

**Defense Information Infrastructure (DII)  
Common Operating Environment (COE)**

**Installation Procedures (IP)  
for the  
METOC Observations Database (MDMETC) Segment  
Release 1.1 Series**

**Revision A**

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**Prepared for:**

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# 1 SCOPE

## 1.1 Identification

These Installation Procedures (IP) describe the installation of the METOC Observations Database Segment (MDMETC) of the METCAST data distribution software, Release 1.1 Series, developed by Fleet Numerical Meteorology and Oceanography Center (FNMOC), Monterey, CA. This software is designed to run under the Defense Information Infrastructure (DII) Common Operating Environment (COE), release 3.1 or higher. The software runs under the following hardware and operating systems:

- Sun Enterprise 450 or higher computer running the Sun Solaris operating system, release 2.5.1 or higher.
- Tactical Advanced Computer, TAC-3 (HP 750/755)/TAC-4 (HP J210), or HP K570 or higher running the HP-UX operating system, release 10.20 or higher.

This document has been developed in accordance with the *DII COE Developer Documentation Requirements, Version 2.0*. Revision A addresses additional questions asked during the installation that were not covered in the original version of this document.

## 1.2 System Overview

METCAST is a standards-based, request-reply and subscription (channel) system for distributing weather information over the Internet using Hyper-Text Transfer Protocol (HTTP) and Multipurpose Internet Mail Extensions (MIME). The METCAST Server Segment is responsible for processing requests for data from METCAST Clients, interfacing with a database to attempt to satisfy each request, and formatting the retrieved data as specified in the request before returning the data to the client. The METCAST Client comprises a separate segment. The MDMETC segment provides the observations database for METCAST Server.

The full METCAST Server installation requires three segments: MDCHNL, MDMETC (the observation database segment) and MCSRVR (METCAST Server itself). **These segments must be installed in the following order:**

1. MDCHNL
2. MDMETC (**NOTE:** This segment requires a later version of the Informix On-Line Dynamic Server (INFXOL) segment than do MDCHNL and MCSRVR. If INFXOL 1.0.2.0/Informix On-Line Dynamic Server 7.30 is not present on the system, this segment should not be installed. MCSRVR can still be installed, but will not have access to observations.)

3. MCSRVr (must be installed last, but requires MDMETC only if observations are to be processed).

## 2 REFERENCED DOCUMENTS

### 2.1 Government Documents

DDR-2 23 January 1998	<i>Defense Information Infrastructure (DII) Common Operating Environment (COE) Developer Documentation Requirements, Version 2.0, Defense Information Systems Agency, Joint Operability and Engineering Organization</i>
Unnumbered 15 June 1998	<i>Software Requirements Specification for METCAST, Space and Naval Warfare Systems Command, Environmental Systems Program Office (SPAWAR PMW-185), San Diego, CA</i>
fnmoc_METCAST_IP_11Series 23 April 1999	<i>Installation Procedures (IP) for the METCAST Client Segment, release 1.1 Series</i>
fnmoc_METCAST_UM_1100 23 April 1999	<i>User Manual (UM) for the METCAST Client Segment, release 1.1.0.0</i>
fnmoc_MDCHNL_IP_11Series_RevA 4 May 1999	<i>Installation Procedures (IP) for the METCAST Channels Database (MDCHNL) Segment, Release 1.1 Series, Revision A</i>
DII.COE31.HP10.20.CIP	<i>DII COE V3.1 HP 10.20 Consolidated Installation Procedures</i>
DII.3010.HP1020.KernelP1.IG-1	<i>DII COE Kernel 3.0.1.0P1 Patch 1 for HP-UX 10.20 Installation Guide</i>
DII.3010.HP1020.KernelP2.IG-1	<i>DII COE Kernel 3.0.1.0P2 Patch 2 for HP-UX 10.20 Installation Guide</i>
DII.3010.HP1020.KernelP3.IG-1	<i>DII COE Kernel 3.0.1.0P3 Patch 3 for HP-UX 10.20 Installation Guide</i>
DII.3010.HP1020.KernelP4.IG-1	<i>DII COE Kernel 3.0.1.0P4 Patch 4 for HP-UX 10.20 Installation Guide</i>
CM-400-185-03U 2 April 1997	<i>Consolidated Installation Guide, Solaris 2.5.1, Version 3.1</i>

CM-400-06U 2 April 1997	<i>Errata Sheets for Solaris 2.5.1 Version 3.1</i>
CM-400-77-03 7 April 1997	<i>DII COE Kernel v3.0.0.3 Installation Guide for Solaris 2.5.1</i>
CM-400-77-04 22 July 1997	<i>DII COE Kernel v3.0.0.3 Kernel Patch 3 Installation Guide for Solaris 2.5.1</i>
CM-400-77-06 31 July 1997	<i>DII COE Kernel v3.0.0.3 Kernel Patch 4 Installation Guide for Solaris 2.5.1</i>
CM-400-77-07	<i>DII COE Kernel v3.0.0.3 Kernel Patch 5 Installation Guide for Solaris 2.5.1</i>
CM-400-77-08 27 August 1997	<i>DII COE Kernel v3.0.0.3P6 Kernel Patch 6 Installation Guide for Solaris 2.5.1</i>
CM-400-77-12 01 December 1997	<i>DII COE Kernel v3.0.0.3P8 Kernel Patch 8 Installation Guide for Solaris 2.5.1 (Applicable to Patch 9)</i>
ipd4400magridipTES-10 29 January 1999	<i>Installation Procedures (IP) for the Grid Field Application Program Interface (API) Segment (MAGRID) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4400mdgridipTES-10 29 January 1999	<i>Installation Procedures (IP) for the Grid Field Database Segment (MDGRID) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4200malltipTES-10 9 October 1998	<i>Installation Procedures (IP) for the Latitude-Longitude-Time (LLT) Observations Application Program Interface (API) Segment (MALLT) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4300mdlltipTES-10 9 October 1999	<i>Installation Procedures (IP) for the Latitude-Longitude-Time (LLT) Observations Database Segment (MDLLT) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>

ipd4200maimgiptes-10  
9 October 1998

*Installation Procedures (IP) for the METOC Imagery  
Application Program Interface (API) Segment  
(MAIMG) of the Tactical Environmental Support  
System (Next Century) [TESS(NC)] Meteorological and  
Oceanographic (METOC) Database*

ipd4400mdgridipTES-10  
9 October 1999

*Installation Procedures (IP) for the METOC Imagery  
Database Segment (MDIMG) of the Tactical  
Environmental Support System (Next Century)  
[TESS(NC)] Meteorological and Oceanographic  
(METOC) Database*

## **2.2 Non-Government Documents**

None.

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## **3 SYSTEM ENVIRONMENT**

### **3.1 System Requirements**

#### **3.1.1 Hardware Requirements**

The METOC Observations Database segment is hosted on the following hardware:

- Sun Enterprise 450 or higher
- Tactical Advanced Computer, TAC-3 (HP 750/755)/TAC-4 (HP J210), or HP K570 or higher running the HP-UX operating system, release 10.20 or higher.

The following configurations are recommended:

- Sun Enterprise 450:   RAM: 128 MB minimum, 192 MB optimum  
                          Disk Space: 200 GB
- TAC-3/TAC-4:       RAM: 128 MB minimum, 192 MB optimum  
                          Disk Space: 200 GB  
                          Swap Space: 300 MB

#### **3.1.2 Operating System Requirements**

- Sun:       Solaris 2.5.1
- HP:        HP-UX 10.20

#### **3.1.3 Kernel Requirements**

- Solaris 2.5.1:    Kernel 3.0.0.3 with patches through P9
- HP-UX 10.20 :    Kernel 3.0.1.0 with patches through P4

## 3.2 System and Site Preparations

### 3.2.1 System Configuration

The following software must be properly installed prior to loading the MDMETC segment:

1. Appropriate operating system (as described above)
2. Appropriate DII COE Kernel (as described above)
3. DII COE Informix On-Line Dynamic Server segment (INFXOL), version 1.0.2.0/7.30  
**NOTE: This segment requires a later version of the INFXOL segment than do MDCHNL and MCSRV. If INFXOL 1.0.2.0/Informix On-Line Dynamic Server 7.30 is not present on the system, this segment should not be installed.**
4. DII COE DBAdm Account Group segment version 1.1.0.0
5. DII COE DBAdmR segment version 1.1.0.2
6. MDCHNL Segment (See MDCHNL Segment IP referenced in Section 2.1).

### 3.2.2 Operating System Preparation

Information needed to prepare the operating system is found in these documents:

HP-UX 10.20:

- DII COE V3.1 HP 10.20 Consolidated Installation Procedures
- DII COE Kernel 3.0.1.0P1 Patch 1 for HP-UX 10.20 Installation Guide
- DII COE Kernel 3.0.1.0P2 Patch 2 for HP-UX 10.20 Installation Guide
- DII COE Kernel 3.0.1.0P3 Patch 3 for HP-UX 10.20 Installation Guide
- DII COE Kernel 3.0.1.0P4 Patch 4 for HP-UX 10.20 Installation Guide

Solaris 2.5.1:

- DII COE Kernel v3.0.0.3 Installation Guide for Solaris 2.5.1
- DII COE Kernel v3.0.0.3 Kernel Patch 3 Installation Guide for Solaris 2.5.1
- DII COE Kernel v3.0.0.3 Kernel Patch 4 Installation Guide for Solaris 2.5.1
- DII COE Kernel v3.0.0.3 Kernel Patch 5 Installation Guide for Solaris 2.5.1
- DII COE Kernel v3.0.0.3P6 Kernel Patch 6 Installation Guide for Solaris 2.5.1
- DII COE Kernel v3.0.0.3P8 Kernel Patch 8 Installation Guide for Solaris 2.5.1 (Applicable to Patch 9)

### **3.2.3 Tape/Disk Preparation**

The MDMETC segment software is delivered on 4 mm DAT cartridge for the Sun and HP hardware environments.

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## 4 INSTALLATION INSTRUCTIONS

Installation on HP-UX and Solaris systems is performed using the DII COE Segment Installer.

### 4.1 Media Booting Procedures

To prepare a tape for installation:

1. Insert the tape in the DAT drive.
2. Log in as sysadmin.
3. Select the System Administration SEGMENT INSTALLER utility under the **Software** pull-down menu.
4. Select the source and click the **Read Contents** button. The contents of the tape appear in the SELECT SOFTWARE TO INSTALL portion of the SEGMENT INSTALLER window.

### 4.2 Installation Procedures

(Note: Prior to segment installation, ensure that no existing MDMETC segment is installed on the target platform. If there is a **METOC Obs Database** segment listed in the CURRENTLY INSTALLED SEGMENTS section of the window, select it, then select the **Deinstall** button and follow the instructions on the screen to remove the MDMETC segment.)

To install the METOC Observations Database software:

1. First ensure that the operating system (OS) and Kernel, with all patches, are installed. Instructions for installing the OS, Kernel, and patches are contained in the documentation cited in Section 3.2.2.
2. Ensure that the Informix server is UP. Open an xterm (see Section 5.2) and at the command line type `ps -u informix <Enter>`, where <Enter> means the Enter or Return key. In the listing that appears, look for one or more instances of `oninit`. If they appear, the server is UP. If not, see Section 5.3 for instructions for starting the Informix server (a database administrator must do this). Close the xterm after verifying the server status.
3. Install the MDMETC segment from the installation tape.
  - Highlight **METOC Obs Database Segment**.
  - Click the **Install** button.
4. The INSTALL STATUS dialog box will appear, which will give software loading status in a % format.
5. At the end of the installation, an Update Security Database dialog will open showing changes to the database and asking "Do you wish to delete (or add) these entries from (to) the

database?". Answer n <Enter> each time this question is asked (the question will be repeated a number of times for different entries).

6. As the postinstall portion of the process starts, you will be asked whether you would like to customize the database size. Enter **No**.
7. Next, you will be asked to enter the database size in MB. Enter **128** and click **OK**.
8. You will then be asked to enter the Informix password. Enter it and click the **OK** button to proceed.
9. Once the installation is complete, the SEGMENT INSTALLER window will appear. The **METOC Obs Segment** will be displayed in the CURRENTLY INSTALLED SEGMENTS section of the window.

### 4.3 Installation of Upgrades

Installation of upgrades will generally follow the same procedures listed above.

### 4.4 Installation Verification

All successfully installed segments are listed in the CURRENTLY INSTALLED SEGMENTS portion of the INSTALLER window on HP-UX and Solaris systems

### 4.5 Initializing the Software

No initialization is specifically required

### 4.6 List of Changes and Enhancements

This section is tailored out. This is an initial installation of the METOC Observations Database segment.

### 4.7 Important Considerations

This section is tailored out.

## 5 NOTES

### 5.1 Glossary of Acronyms

COE	Common Operating Environment
DII	Defense Information Infrastructure
FNMOCC	Fleet Numerical Meteorology and Oceanography Center
GUI	Graphical User Interface
HTTP	Hyper-Text Transfer Protocol
IP	Installation Procedure
IP	Internet Protocol
INFXOL	Informix On-Line Dynamic Server Segment
MCSRVR	METCAST Server Segment
MDCHNL	METOC Channels Segment
MDMETC	METOC Observations Database Segment
METCAST	METOC Broadcast
METOC	Meteorological and Oceanographic
MIME	Multipurpose Internet Mail Extensions
PC	Personal Computer
SRS	Software Requirements Specification
SVD	Software Version Description
T&E	Test and Evaluation
TCP	Transport Control Protocol
UM	User Manual

## 5.2 Starting an xterm

Several parts of the installation procedures require the operator to start an xterm and enter commands. To open an xterm:

1. Log in as sysadmin.
2. Go to the tool bar at the bottom of the screen and double-click on the file drawer (File Manager) icon to open the File Manager.
3. Double-click on the DII\_APPS folder to open it.
4. Double-click on the SA\_Default folder to open it.
5. Double-click on the XTerm icon to open an xterm.
6. You can now log in in the xterm.

## 5.3 Double-click on the XTerm icon to open the xterm.Starting the Informix Server

1. Log out and log in as dbadmin.
2. Ensure that the Informix server is running. Click on **Database Control** on the menu bar, then select **Server Control** from the drop-down menu. If the dialog that appears says Informix server is DOWN, click on the Start Server button. This should start the Informix server, and the dialog should say the server is UP. When the server is up, close the dialog.
3. Log out and log in as sysadmin.